PCT

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04M 3/42, 7/00, 3/50, 3/36	A1	(11) International Publication Number: **WO 98/39901** (43) International Publication Date: 11 September 1998 (11.09.98)

(21) International Application Number: PCT/CA98/00172

(22) International Filing Date: 4 March 1998 (04.03.98)

(30) Priority Data:
2,199,312   6 March 1997 (06.03.97)   CA

(71) Applicant: ALPHANET TELECOM INC. [CA/CA]; 4th floor, 55 St. Clair Avenue West, Toronto, Ontario M4V 2Y7 (CA).

(72) Inventor: REICHMANN, Michael; 4th floor, 55 St. Clair Avenue West, Toronto, Ontario M4V 2Y7 (CA).

(74) Agents: HALL, S., Warren et al.; Suite 301, 133 Richmond Street West, Toronto, Ontario M5H 2L7 (CA).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: TELEPHONE CALL TRANSCRIPTION WITH ELECTRONIC DELIVERY
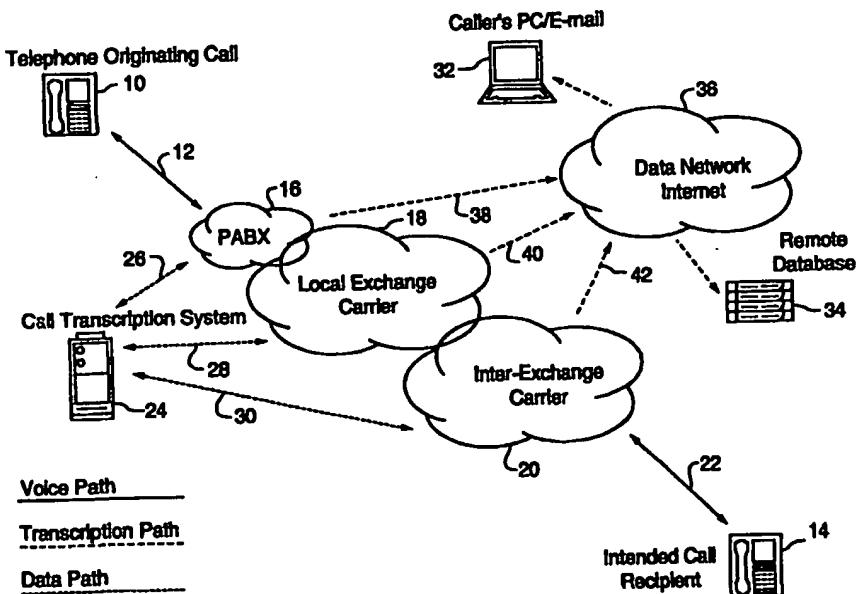
(57) Abstract

The present invention provides for a telephone call transcription system having a connection arrangement connecting the telephone call transcription system to a telephone system for monitoring telephone communications. The telephone call transcription system includes a recording arrangement for providing a digital record of the telephone communication and a transmitting arrangement associated with the recording arrangement connected to a data network for transmitting the record of the telephone communication to an electronic address accessible via the data network or data base retrieval system.

TITLE: TELEPHONE CALL TRANSCRIPTION WITH ELECTRONIC
DELIVERY

5 FIELD OF THE INVENTION

The present invention is directed to an apparatus
and a method for transcribing telephone calls as a digital
audio file, and forwarding the digital audio file
electronically to a pre-selected address.

10

BACKGROUND OF THE INVENTION

There are many instances in which persons may
desire to record telephone calls. For example, the use of
telephone conferencing in business discussions is
15 increasing, and it would be advantageous to have a
transcription of such conference calls for future
reference. It may also be possible that copies of
transcriptions of telephone calls be provided to third
parties. It is known to record telephone calls using an
20 audio recorder attached to the telephone line. While a
transcription of the call could be created, storage, filing
and subsequent retrieval of the transcription was extremely
difficult. In addition, the ability to forward copies of
the transcribed call to others is awkward, if not at times,
25 impossible.

With the advent of computer telephony equipment and
software, it may be possible for a user utilizing such
computer telephony equipment to record the telephone
30 conversation being processed by the equipment and software.
While such a situation may be possible, it requires that
any telephone call which is desired to be transcribed must
be either originated or received using the computer
telephony equipment. It is not possible to record
35 telephone calls which do not use such equipment.

Personal computers and electronic mail systems
provide a highly efficient means of storing and

distributing digital information. Many forms of data,
including text, audio and images may be digitally stored on
a PC. Similarly, E-mail systems provide a ubiquitous inter
connective means of distributing these various forms of
5   data. In particular, the Internet now provides an almost
seamless interconnection of both private and public data
messaging systems worldwide. It would be advantageous to
be able to record and store telephone conversations in a
digital format when desired.

10

SUMMARY OF THE INVENTION

The present invention provides for a telephone call
transcription system comprising a connection arrangement
15   connecting the telephone call transcription system to a
telephone system for monitoring telephone communications.
The telephone call transcription system includes a
recording arrangement for providing a digital record of the
telephone communication and a transmitting arrangement
20   associated with the recording arrangement connected to a
data network for transmitting the record of the telephone
communication to an electronic address accessible via the
data network or data base retrieval system.

25   In an aspect of the invention there is provided a
telephone call transcription system in combination with the
publicly switched telephone system. The telephone
transcription system is a user selectable caller service
which provides a digital recording of a telephone
30   communication of the user when the calling service is
selected. The transcription system comprises an activation
arrangement for initiating the transcription service and
identifying the user, a digital recording arrangement
connected to the telephone system for producing a digital
35   record of the call, a reference arrangement for determining
an electronic address to which the digital record is to be
transmitted using a data network and a transmitting
arrangement associated with a recording arrangement and

connected to the data network for transmitting the digital
record of the telephone communication to the electronic
address accessible via the data network.

5   BRIEF DESCRIPTION OF THE DRAWINGS
            Preferred embodiments of the present invention are
    illustrated in the drawings attached hereto in which:
            Figure 1 is a schematic view of a first preferred
    embodiment of the telephone call transcription system of
10   the present invention;
            Figure 2 is a schematic view of a second preferred
    embodiment of the telephone call transcription system of
    the present invention;
            Figure 4 is view of a typical page of the web
15   server of Figure 2 as viewed by a user; and
            Figure 3 is a view of a typical email message
    transmitted by the system of Figure 1 or 2.

    DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS
20   Figure 1 illustrates in schematic view a preferred
    embodiment of the telephone call transcription system of
    the present invention. As shown in Figure 1, when a user
    desires to originate a call from a telephone originating
    system 10, he establishes a voice path 12 to an intended
25   recipient 14. Depending upon the location of the user
    originating the call this voice path may pass through a
    PABX 16 to a local exchange carrier 18 and if the call is a
    long distance telephone call, through an inter-exchange
    carrier 20. The routing and handling of the call through
30   this telephone system is as is common in day to day
    operation of telephone systems. From the PABX 16, local
    exchange carrier 18, or inter-exchange carrier 20, as the
    case may be, the telephone call is routed through a final
    voice path 22 to the intended call recipient 14. It will
35   be immediately appreciated that for those users directly
    connected to the local exchange carrier 18 the telephone
    call will not go through a PABX 16. In addition, for local

exchange calls, the inter-exchange carrier 20 is not
utilized.

5   The telephone call transcription system 24 of the
present invention is connected to the telephone system
described above in a manner to permit the transcription
system to monitor and record telephone communication
passing along the voice paths as described above.
Depending upon the arrangement of the telephone system to
10   which the user's telephone set 10 is connected, the
telephone transcription system 24 may be connected anywhere
along the potential voice path for telephone communication.
Thus, for those locations in which the users' telephone
sets 10 are connected to a PABX 16 the telephone
15   transcription system 24 may also be connected to such PABX
16 via a transcription path 26. Alternatively, the
telephone transcription system 24 may be connected to a
local exchange carrier 18 via transcription path 28 or to
the inter-exchange carrier 20 via transcription path 30.
20   The particular connection arrangement 26, 28 or 30 utilized
depends upon the telephone system arrangement to which the
telephone set 10 is connected as well as to the user's
telephone call transcription needs or desires.

25   After the telephone call is transcribed in a manner
as will be explained below, the transcribed call is
forwarded electronically to a desired or pre-determined
location. Typically, such desired or pre-determined
location will be an E-mail address 32 or a remote database
30   34. In both of these situations, the transcribed call can
be retrieved by the user when and as desired. In order to
forward the transcribed call electronically, the telephone
transcription system 24 is connected to a means for
electronically transferring the transcribed call to the
35   desired location. For example, as shown in Figure 1, the
telephone transcription system is connected to a data
network 36 such as the Internet which enables the
transcribed call to be transferred to the desired or pre-

determined E-mail address 32 or remote database 34. Depending upon the particular setup, the connection of the telephone transcription system 24 to the data network 36 may be through the PABX 16 along a data path 38, or through

5   the local exchange carrier 18 along data path 40, or through the inter-exchange carrier along data path 42.

        The operation of the telephone transcription system of the present invention will now be described. When a

10   user originates or receives a telephone call which is to be recorded, the telephone transcription system 24, which has been monitoring the telephone line commences to record the telephone call as a digital audio file. During the recording, if desired or necessary, a recording

15   notification tone may be generated by the system to notify all users that the call is being recorded. Alternatively, the recording notification tones may be manually initiated by the user.

20   The call can be recorded in any of the commonly used audio file formats such as a .WAV, an .AIF, a .SND, or other standard formats. If the call is recorded in a standard format, readily available software systems may be utilized for playback and manipulation. Alternatively, the

25   sound could be recorded in a proprietary format which has been optimized to provide smaller files sizes for the same length of recording as the standard formats. If the call is recorded in a proprietary format, special software systems would be provided to enable playback, manipulation,

30   compression, reforwarding and archiving.

        In order to reduce the transcribed call file size, low sampling rates and compression of the recorded call may be used. By using a low sampling rate, the size of the

35   file is proportionately reduced. While many sound files for use in multimedia applications are currently recorded in 16-bit stereo at a sampling rate of 44 kHz, such recording levels require up to 11 MB per minute of sound.

For the recording of speech for the telephone transcription
system of the present invention, sampling rates of 11 kHz
or less are generally adequate, with a sampling rate of 6.8
kHz being preferred.

5

In addition, compression of the recorded sound
using standard or proprietary compression techniques may be
employed. Two commonly utilized compression techniques
commonly used are ADPCM which generally reduces file size
10   by about 50% and MPEG which can achieve up to 12:1
compression. As a significant percentage of telephone
conversations is silence, a proprietary compression
technique may be used either alone or in combination with
one of the other compression techniques to further reduce
15   the size of the transcribed telephone call file. It has
been found that by using a combination of low sampling and
a compression technique, file sizes of about 40-50 kB per
minute of sound can be achieved while retaining the quality
of the recorded sound.

20

Once the telephone conversation has been completed,
the telephone transcription system 24 electronically
transfers the file containing the transcribed telephone
call to the desired or pre-determined location. After the
25   file has been transmitted, the file is preferably erased
from the telephone transcription system. The reason for
immediately erasing the file is mainly for security reasons
however by immediately erasing the file, the amount of
storage space required by the system is also optimized. As
30   a number of recorded telephone calls may involve
confidential information, it is desirable to maintain the
confidentiality by erasing the file from the telephone
transcription system.

35   As illustrated in Figure 1, the pre-determined or
desired location could be an E-mail address 32, either the
user's own E-mail address or another pre-determined or
desired E-mail address. The telephone transcription system

- 6 -

could package the recorded telephone conversation file in
an E-mail message and send the file as an attachment to
that message. As shown in Figure 4, the system may also
provide related information such as the time of day, date
5   and length of the call, the telephone number and caller ID
of the originating and or called party or parties, country
or city of origin or termination and voice path utilized
for the telephone call. For purposes of increased
security, the attachment and even the entire E-mail message
10 may be encrypted. As the original file is deleted by the
telephone transcription system, bounced E-mail messages
could also be automatically deleted or they could be
redirected to another location, such as a remote database
or an alternate E-mail address.

15

        The desired or pre-determined location may also be
a remote database 34 maintained on a computer system
accessible by the user. The database 34 may be accessed by
the user using a data or a voice connection. For a data
20 connection, the user would connect to the database either
by direct dial-up connection or by accessing the database
through a data network such as the Internet. Once
connected to the database, the user may listen to the files
on-line or may download, archive or forward the file or a
25 copy to a third party. Similar to the situation with E-
mail, the message may also be packaged with other
information such as the time of day, date and length of the
call, the telephone number and caller ID of the originating
and or called party or parties, country or city of origin
30 or termination and voice path utilized for the telephone
call, all accessible from the database access.

        For a voice connection, the user could access the
database by an interactive telephony session by keying in
35 responses to queries using the keypad of a standard
telephone set. In this way, the files could be listened
to, archived or forwarded to another address. For voice
connections, additional information could be appended or

- 7 -

prepended to the telephone call file in the form of
synthesized or pre-recorded messages. Alternatively, the
additional information could be in the form of text as in
the case of E-mail or data access and a text to voice
5   software system could be used for playback of the
additional information.

The telephone transcription system of the present
invention may be configured to record all calls, to record
10 only calls matching a certain criteria or only to record
calls in response to the user initiating the recording of
the call. If the system is configured to record calls
matching a specified criteria, the criteria could be based
on the originating and or receiving caller. For example, a
15 user could configure the system to record all calls
originating from or received by their telephone which would
be identified by a unique number. Alternatively, the
system could be configured to only record calls which
either originate from or are received by their telephone.
20 A third possibility would be to only record calls in which
a specified telephone number or numbers are one of the
parties involved in the call. Thus the system could be
instructed to record all calls placed to or received from a
specified third parties telephone number or ID.
25

If the system is configured to record calls only
when specifically instructed to do so by the user, the
instructions could be transmitted to the system in many
ways. For example, the user may be required to enter a
30 special code and or a Personal Identification Number to
initiate the recording. Such codes or PIN may be entered
by using the telephone keypad to enter the digits in the
form of DTMF as part of a recording initiating process
which preferably takes place prior to initiation of the
35 call. Alternatively, such instructions could be part of a
credit card, telephone calling card or country-direct call.
It may be desirable or necessary in some circumstances for
the user to dial a specified number to enter this

information as an intermediate step prior to placing the
telephone call. Thus a user would first dial an access
number for the transcription telephone system, initiate the
transcription in a specified manner and then place the

5   telephone call which is desired to be recorded. Such a
system could be especially of benefit if the user were
placing calls from a pay phone or other telephone which is
not the user's own telephone.

10   The system may also be configured to enable
recording on the fly, i.e. recording of a call after the
call has been initiated. For example, if the user has
already started a call and desires to record the call, the
user could instruct the telephone transcription system to

15   commence recording by entry of a specified code such as the
entry of special digits using the telephone keypad.

        The telephone transcription system of the present
invention may also be configured to enable the user to

20   cancel the recording during the conversation or to erase
the recording at the termination of the call. These
features may be accessed by entry of special digits on the
telephone keypad or may utilize a data link to the
telephone transcription system to send such instructions.

25   If during the call, the user desires to cancel the
recording, they could press a particular key or combination
on their telephone set to cancel the recording. Similarly,
if at the end of the call, the user desires to erase the
recording of the call, they could access the telephone

30   transcription system using their telephone and instruct the
system to erase the call. In order to provide the user
with sufficient time to do so, a delay could be built into
the system between the completion of the recording of the
call and the forwarding of the transcribed telephone call

35   file to the pre-determined or desired location. Typically,
this delay would be on the order of 5 to 30 minutes.

The configuration of the telephone transcription
service may be user modifiable. The user may be able to
access account information and parameters to establish the
customization of the system to their preferences. For
5   example, using an interactive telephony system, the user
could modify information and parameters by responding to
prompts either vocally using voice recognition software or
by generation of DTMF by pressing selected keys or
combinations. Alternatively, as shown in Figures 2 and 4,
10 the user could utilize their access an on-line service such
as for example a server accessible via the World Wide Web
to modify or customize the system to their requirements.
Such information and parameters as security and encryption
access codes, recording parameters and customer profile
15 data including preferred E-mail address or addresses or
delivery may also be accessed and configured or modified.

The telephone call transcription system, as shown
if Figure 2, may also be configured to provide real time
20 control and modification by the user via an on-line service
such as for example a server accessible via the World Wide
Web. The user could establish a connection to their
account provided through the web page of the transcription
service provider. An example of such a web page is found
25 in Figure 4. The user, by accessing the web page, would
then be able to control the transcription of telephone
calls as they are received, choosing to turn on or off
transcription at the beginning of or during the
conversation. The user could also perform other functions
30 such as the erasure or deletion of the transcribed call or
redirection of the transcribed call or copies thereof to
alternate electronic addresses. If desired the user could
also utilize the connection to the web page account to add
further information to the transcribed call prior to its
35 transmission. Such further information may include further
notes in the form of text or voice or other such
information. The user would also be able to use the
connection to modify system generated messages which are

appended to the digital file as described above. Such
modifications could add to or delete from the system
generated messages or could specify which system generated
messages are to be appended to the file. The user could be

5   presented with a list of options or messages which could be
appended to the file and could select from the list of
options or messages which of those they wished to append to
the files. It will be apparent to those skilled in the art
that the active connection to the account could also be

10   used in other ways to optimize the use of the transcription
system by the user.

        Although various preferred embodiments of the
present invention have be described herein in detail, it

15   will be appreciated by those skilled in the art that
variations may be made thereto without departing from the
spirit of the invention or the scope of the appended
claims.

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1.   A telephone call transcription system comprising
        a connection arrangement connecting said system to
a telephone system for monitoring telephone communications,
        a recording arrangement for providing a digital
record of a monitored telephone communication,
        a transmitting arrangement associated with said
recording arrangement and connected to a data network for
transmitting the record of the telephone communication to
an electronic address accessible via the data network.

2.   A telephone call transcription system according to
claim 1 wherein said electronic address is an email address
or a remote database.

3.   A telephone call transcription system according to
claim 2 wherein the recording arrangement records all
monitored telephone communications.

4.   A telephone call transcription system according to
claim 2 further including a control arrangement for
controlling one or more of the recording arrangement and
transmitting arrangement.

5.   A telephone call transcription system according to
claim 4 wherein the control arrangement controls the
recording arrangement for enabling recording of only those
telephone communications matching selected criteria.

6.   A telephone call transcription system according to
claim 5 wherein the control arrangement includes a user
access means for allowing a user to enable recording of
selected telephone communications.

7.   A telephone call transcription system according to
claim 6 wherein the user access means is provided by an on-
line service.

8.   A telephone call transcription system according to
claim 7 wherein the on-line service is provided by a server
on the Internet.

9.   A telephone call transcription system according to
claim 8 wherein the controls means allows a user to control
the recording arrangement to either terminate recording of
a telephone communication during a call or to erase the
recorded telephone communication prior to transmission by
the transmitting arrangement.

10.   A telephone call transcription system according to
claim 4 wherein the control arrangement controls the
transmitting arrangement for controlling transmission of
telephone communications matching selected criteria.

11.   A telephone call transcription system according to
claim 10 wherein the control arrangement includes a user
access means for allowing a user to control transmission of
selected telephone communications.

12.   A telephone call transcription system according to
claim 11 wherein the user access means is provided by an
on-line service.

13.   A telephone call transcription system according to
claim 12 wherein the on-line service is provided by a
server on the Internet.

14.   A telephone call transcription system according to
claim 13 wherein said control means includes a look up
database which maintains user instruction information
containing the destination address to which the digital
record is to be transmitted.

15.   A telephone call transcription system according to claim 14 wherein said look-up database also maintains user account information and user selectable parameters for operation of the transcription system.

16.   A telephone call transcription system according to claim 1 wherein said transcription system includes a message processing means for appending system generated messages to the record of the telephone communication for transmission by the transmitting arrangement.

17.   A telephone call transcription system according to claim 16 wherein the system generated messages include information on the originating and receiving telephone numbers of the telephone communication, and date time and length of the telephone communication.

18.   A telephone call transcription system according to claim 1 wherein the telephone call transcription system further includes a compression means for compressing the digital record of the telephone communication prior to transmission by the transmitting means.

19.   A telephone call transcription system according to claim 1 wherein the system further includes an encryption means for encrypting the digital record of the telephone communication prior to transmission by the transmitting means.

20.   A telephone call transcription system in combination with a publicly switched telephone system, said telephone transcription system being a user selected calling service which provides a digital recording of a telephone communication of the user when said calling service is selected, said transcription system comprising
         an activation detector for initiating the transcription service and identifying the user,

a digital recording arrangement connected to said
telephone system for producing a digital record of the
call,

an arrangement for determining an electronic
address to which the digital record is to be transmitted
using a data network, and

a transmitting arrangement associated with said
recording arrangement and connected to the data network for
transmitting the digital record of the telephone
communication to the electronic address accessible via the
data network.

21.   A telephone call transcription system as claimed in
claim 20 wherein said call transcription service is
directly associated with one of a PABX, a Local Exchange
Carrier or a Inter-Exchange Carrier.

22.   A telephone call transcription system according to
claim 21 wherein said electronic address is an email
address or a remote database.

23.   A telephone call transcription system according to
claim 22 wherein said activation detector includes a
control arrangement for controlling one or more of the
recording arrangement and transmitting arrangement.

24.   A telephone call transcription system according to
claim 23 wherein access to the control arrangement is
through an on-line service.

25.   A telephone call transcription system according to
claim 24 wherein the on-line service is provided by a
server on the Internet.

26.   A telephone call transcription system according to
claim 25 wherein the controls arrangement controls the
recording arrangement to either terminate recording of a
telephone communication during a call or to erase the

recorded telephone communication prior to transmission by the transmitting arrangement.

27. A telephone call transcription system according to claim 23 wherein the control arrangement controls the transmitting arrangement for controlling transmission of telephone communications matching selected criteria.

28. A telephone call transcription system according to claim 27 wherein access to the control arrangement is through an on-line service.

29. A telephone call transcription system according to claim 28 wherein the on-line service is provided by a server on the Internet.

30. A telephone call transcription system according to claim 29 wherein said control arrangement includes a look up database which maintains user instruction information containing the electronic address to which the digital record is to be transmitted.

31. A telephone call transcription system according to claim 30 wherein said look-up database also maintains user account information and user selectable parameters for operation of the transcription system.

32. A telephone call transcription system according to claim 31 wherein said transcription system includes a message processing means for appending system generated messages to the record of the telephone communication for transmission by the transmitting arrangement.

33. A telephone call transcription system according to claim 32 wherein the system generated messages include information on the originating and receiving telephone numbers of the telephone communication, and date time and length of the telephone communication.

34.   A telephone call transcription system according to
claim 33 wherein the telephone call transcription system
further includes a compression means for compressing the
digital record of the telephone communication prior to
transmission by the transmitting means.

35.   A telephone call transcription system according to
claim 34 wherein the system further includes an encryption
means for encrypting the digital record of the telephone
communication prior to transmission by the transmitting
means.

1/4

FIG.1

Remote Database — 34

Data Network Internet — 36

Caller's PC/E-mail — 32

Intended Call Recipient — 14

Inter-Exchange Carrier — 20

Local Exchange Carrier — 16

PABX

Telephone Originating Call — 10

Call Transcription System — 24

Voice Path
Transcription Path
Data Path

FIG.2

Voice Path _____

Transcription Path _ _ _ _ _ _

Data Path _ . _ . _ . _ .
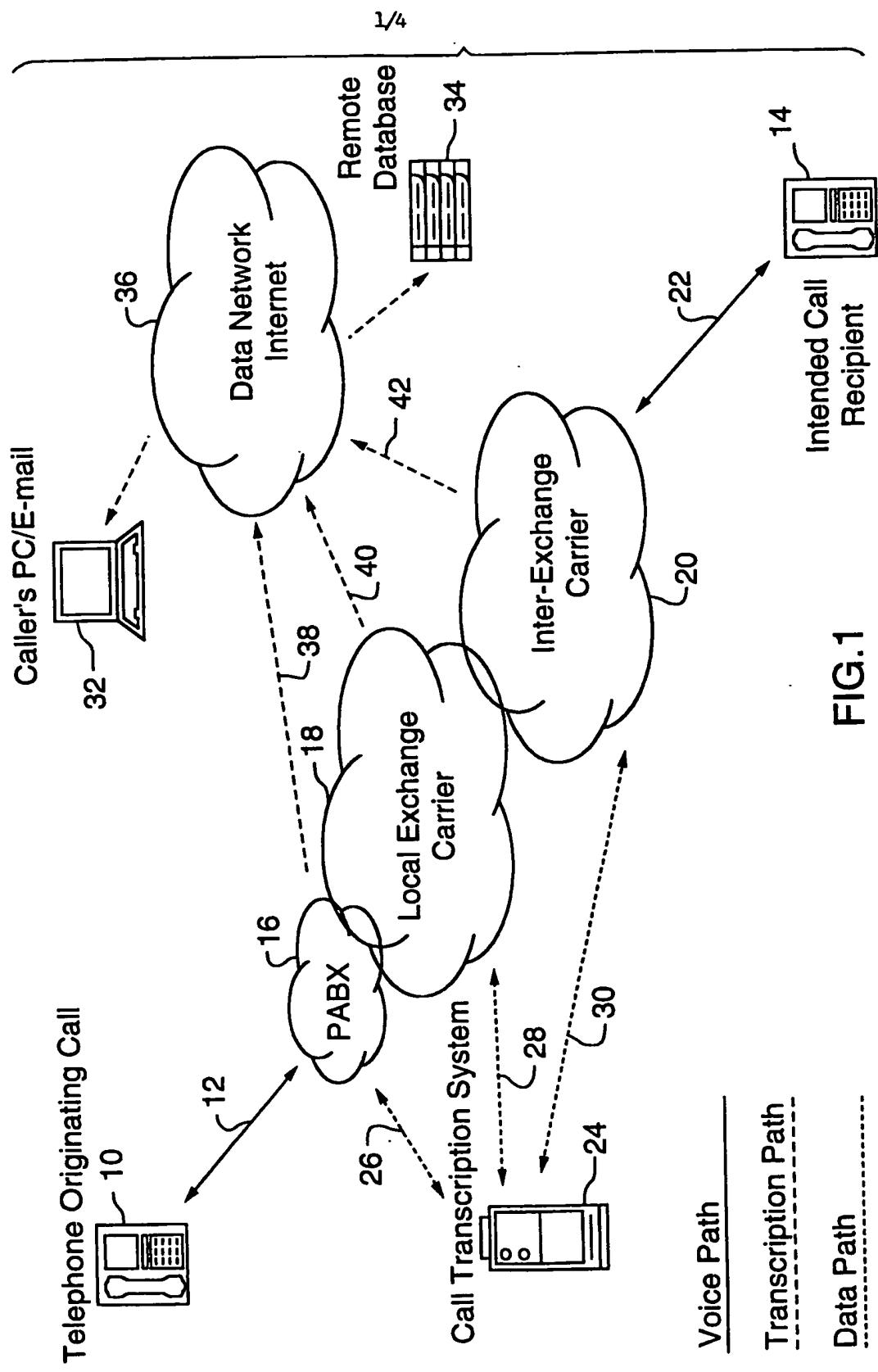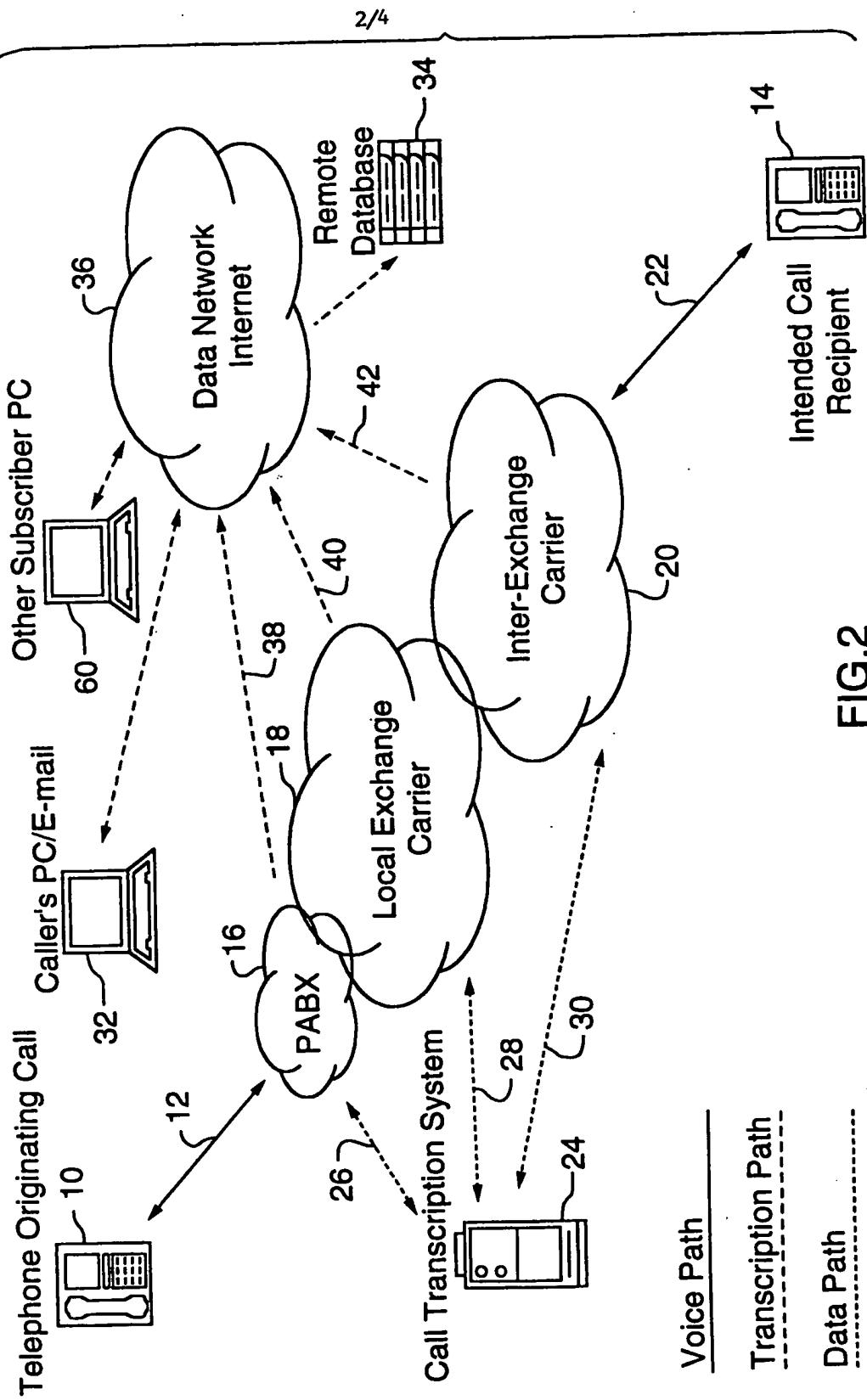
Subject: Transcribed Telephone Call #2741
Date: Fri, 28 Feb 1997 16:46:44
From: "Transcription Service" <trans@mondial.com>
To: Michael Reichmann" <michael.reichmann@alphanet.net>

The attached file contains a transcription of a telephone call made:

From: 416/413-4400
To: 212/555-1212
On: Fri,28 Feb 1997 16:37:00 EDT
Duration: 3 minutes, 32 seconds
Type: .WAV
Size: 1.5 MB

This files, as requested in your profile, has also been archived for Web
retrieval at http://www.mondial.com.

| Part 1 |

| Type: application/ms.wav |
| Encoding: base64 |

FIG.3

http://www.mondial.com

Call Transcription Web In-Box

User Account:Michael Reichmann
User Account Number: 416-413-4400
User Password: XXXXXXXXX

Current Saved Transcriptions

Select	From	To	Date / Time	Conference	Duration	Type	Size
	416-413-4400	212/555-1212	Fri,28 Feb 1997 16:37:00 EDT	No	3 Min, 32 Sec	.wav	1.5mb
	416/413-4400	619/234-1234 514/567-3456 212/789-4567	Mon, 3 March 1997 09:13:00 EDT	Yes	6 Min	.wav	3 mb
√	416/365-7867	416/654-9823	Mon, 3 March 1997 13:15:30 EDT	No	2 Min	wav	1 mb

Select File(s) above

Play	Download
Delete	Forward

Account andTranscription Controls

Enter Password	Change Password	Control Call on Registered Telephone Line	Control Call on Registered Calling Card
Record Current Call	CC This Transcriptions	Forward Transcriptions to Email Account	Forward Transcriptions to Web
Add Another Party	Cancel Current Transcription	Specify Email Account(s)	Other User Set-able Parameters
Append Text info	Append Voice Information	Encrypt Current Recording	Change Encryption Password

FIG.4

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6   H04M3/42   H04M7/00   H04M3/50   H04M3/36

According to International Patent Classification(IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6   H04M   H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and. where practical. search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document. with indication. where appropriate. of the relevant passages	Relevant to claim No.
X A	US 5 351 276 A (DOLL JR WILLIAM J ET AL) 27 September 1994 see abstract see column 7, line 56 – column 10, line 35 ---	1,20 9-11,26, 32-34
A	"RECORD A PHONE CONVERSATION AND PLACE INTO PHONEMAIL" IBM TECHNICAL DISCLOSURE BULLETIN, vol. 34, no. 7A, 1 December 1991, page 455 XP000255681 see the whole document ---	1,20,26, 33
A	EP 0 675 625 A (ZUCKER JOANN) 4 October 1995 see the whole document --- -/--	1,16,20, 21,32,33

[X] Further documents are listed in the continuation of box C.   [X] Patent family members are listed in annex.

' Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search	Date of mailing of the international search report
1 July 1998	09/07/1998

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040. Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Megalou, M

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document. with indication,where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 696 118 A (CANON INFORMATION SYST INC) 7 February 1996 see abstract see figures 1,3	1,20

2

INTERNATIONAL SEARCH REPORT

Information on patent family members

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5351276	A	27-09-1994	US	5127003 A	30-06-1992
			EP	0524297 A	27-01-1993
			WO	9214314 A	20-08-1992
EP 0675625	A	04-10-1995	NONE		
EP 0696118	A	07-02-1996	US	5572677 A	05-11-1996
			JP	8195763 A	30-07-1996